Short Sea Shipping
The full potential yet to be unleashed
What we describe today as short sea shipping has for centuries been the main mode of seaborne transport in Europe. Before ocean liners and bigger vessels dominated the seas, vessels sailing short distances between European port cities and ports in Europe’s vicinity were the norm. They not only contributed to the fast economic development of the continent by transporting goods and people but they also facilitated intercultural exchanges and the spread of knowledge and ideas between Europe and its surroundings.

Short sea shipping still serves intra-European trade as well as trade with Europe’s neighbours. It facilitates the economic development by transporting goods and passengers and by being a source of economic growth in itself, providing jobs and revenue to thousands of people, from the shipyard building and equipping vessels, to the seafarer on board, the catering company that serves food on the ferry vessels, down to the little café where the driver waits before rolling the truck on board.

The transport landscape has however drastically changed. Short sea shipping is in many instances in direct competition with other modes and is weighed down by regulatory fragmentation and considerable bureaucratic hurdles which impede the creation of a true single market for shipping in Europe.

The promotion of short sea shipping has been on the EU agenda since the early 1990s. Despite many good initiatives, a number of long-standing problems have not been resolved and the market share of short sea shipping has stagnated. Worse still, freight transport by short sea declined between 2005 and 2012 by 1.6%. However, short sea shipping can enable many cross-cutting synergies and have a positive impact on numerous EU priorities, not least because of its ability to reduce congestion, lower external costs and improve efficiency of logistic chains.

The EU needs to plan for the future: cargo and passenger flows will keep growing and will not be easily absorbed by the other modes of transport without a disproportionally negative impact on its infrastructures, way of life and environment. Short sea shipping can, if only its full potential were to be unleashed, safely, efficiently and cost-effectively cope with these demands and ensure that flows in goods and people are smoothly handled.

In this publication we present the short sea sector and its main characteristics advocating the launch of a ‘Short Sea 2.0’ policy that will unleash the full potential of short sea shipping.1

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‘Short sea shipping’ is the movement of cargo and passengers by sea over short distances. The European Commission describes short sea shipping as follows: “short sea shipping includes domestic and international maritime transport, including feeder services, along the coast and to and from the islands, rivers and lakes. The concept of short sea shipping also extends to maritime transport between the Member States of the Union and Norway and Iceland and other States on the Baltic Sea, the Black Sea and the Mediterranean”.¹

Offshore supply services are a new, important segment of the short sea shipping sector, recently spurred on by the uptake of offshore wind energy. However given its specific nature and different characteristics, it was decided that for this publication a more narrow definition of short sea shipping will be used.

¹ The Development of Short Sea Shipping in Europe: A Dynamic Alternative in a Sustainable Transport Chain, COM (1999) 317 final
A key factor of intra-EU trade

In Europe, shipping accounts for 37% of intra-EU trade. Road transport counts for 45%, while rail comes much lower, with just above 10%. Inland waterways and transportation by pipeline each account for a little less than 5% and air transport is the least solicited means of intra-EU freight transportation.\(^3\)

Short sea shipping is a key mode that ensures that goods and people move around Europe. Short sea shipping is therefore one of the main pillars of the internal market. With trade expected to grow considerably in the years to come, short sea shipping increasingly seems to be the only mode capable of accommodating these expected volumes, having not yet reached its full potential and being less tethered by shore-based limitations than other modes. The overall impact on the logistics chain, the environment and the infrastructure of the European transport network will be considerably smaller if the projected increase in cargo and passengers is moved to short sea shipping.

Nowadays cargo and passengers travelling in the EU are clogging up the road and rail networks, creating bottlenecks, with high CO2 emission and noise pollution. Short sea shipping allows for the channeling of cargo and passengers around the EU instead of in it, away from major population centers and with drastically less wear on the EU’s transport infrastructure, less congestion and crucially, lower emissions.

**EU28 Performance by mode - for freight transport (billion tonne-km)**

Source: Eurostat, 2014

\(^3\) Analysis of recent trends in EU shipping and policy support to improve the competitiveness of short sea shipping in the EU, Cenit, vito, COWI, June 2015
Short sea shipping transports both passengers and freight in Europe and its vicinity. When it comes to non-passenger transport, the breakdown of short sea shipping is as follows: In 2012, liquid bulk accounted for 823 million tonnes, or 46% of SSS freight cargo to and from the EU-28, followed by dry bulk at 358 million tonnes (20%). Regarding liquid bulk, Dutch ports had the largest volume (155 million tonnes), followed by Italy and the UK, with 142 and 130 million tonnes, respectively.

Container vessels accounted for 28 million TEUs and ro-ro (Roll-on/roll-off) ships carried 234 million tonnes of goods (both cargo types accounted for about 13% of total tonnage). In that context, the UK had by far the largest SSS of ro-ro units (83 million tonnes). At 48 million tonnes, Germany was the main country in terms of SSS of containers, followed by Spain and Belgium, at 43 and 41 million tonnes, respectively.4

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**Breakdown of Short Sea Shipping by sector**

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**EU-28 short sea shipping of freight transport by sea region and type of cargo in 2012**

![Diagram showing the breakdown of short sea shipping by sea region and type of cargo in 2012.](Source: Eurostat, 2014)

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4 **Cenit, vita, COWI, June 2015**
Liquid bulk remains the largest cargo type in all sea regions. However, while dry and liquid bulk goods accounted for almost two thirds of total SSS of goods in the Black Sea, the comparable data for the Atlantic Ocean was 34%. There is variation in the share of dry bulk goods between the sea regions, ranging from 15% in the Mediterranean to 25% in the Black Sea. At 19%, the Mediterranean has the largest share of SSS of containers in 2012. For short sea ro-ro units, the Atlantic Ocean (where the two main ro-ro ports, Dover and Calais, are located) account for 21% of the total.\(^5\)

Transhipment generates additional short sea traffic through the movement of goods between large mother ships and smaller feeder vessels or between equally large ships plying on different routes. For example, the port of Piraeus is a major short sea hub, with around 80% of the tonnage directly handled resulting from transhipment.\(^6\)

\(^5\) Cenit, vito, COWI, June 2015

\(^6\) Modal share of freight transport to and from EU ports, European Parliament, DG for internal policies, March 2015
Main market characteristics

Competing with other modes of transport

One of the defining differences between short sea and deep sea shipping is that there are no alternatives to the latter. In contrast, short sea shipping often competes with other modes of transport such as road and rail. That said, short sea shipping and other land-based modes often also cooperate in forming truly intermodal logistics chains.

Very frequent port calls

Short sea shipping has more frequent port calls, which in turn means that the price and quality of all port related services and hinterland connections have a relatively bigger impact than on deep sea operations. For example, vessels with a deadweight of 10,000 tonnes or less, which are typically engaged in short sea shipping, account for more than 50% of total vessel port calls in Rotterdam.7

A diverse sector

The short sea sector comprises a variety of shipowners, ranging from the larger ones with hundred-vessel fleets to captains owning and sailing their own vessel. This has consequences for the absorption capacity of the sector for new regulations. Smaller shipowners often have restricted access to capital investments which are in many instances of primordial importance to ensure timely regulatory compliance.

The diversity of the sector also extends to the ship types and sizes. The EU short sea fleet is composed of ships such as ferries, car carriers, mixed purpose vessels, container carriers, offshore service vessels, etc... The sizes can greatly vary between large vessels with newbuild prices of € 100 million to small sea/river vessels with a newbuild price of € 15 million. This has an impact on the capacity to invest in new (environmental) equipment, which, for the smaller vessels, can be a relatively high percentage of the vessel’s value. Finally, due to their technical specificities, some ships can accommodate new compliance equipment more easily than others.

7 Port of Rotterdam
No Single Market for shipping

Transport of a container from Nijmegen (The Netherlands) to Borås (Sweden) via:

Road transport
The driver issues a CMR letter

Short sea shipping
1. Transport to the port of loading – The driver issues a note
2. The consignor declares community status of goods
3. The shipping company enters the container in the port community system at the port of loading terminal
4. The shipping company submits a bill of lading to the terminal and declares community status of the goods
5. The port terminal checks the documentation of community status of the goods
6. The manifest of the ship is being updated by the shipping company including information about the status of the goods
7. The ship issues the required IMO FAL forms to the different Dutch authorities and the Port of Rotterdam before departure (Single Window not in place yet)
8. The ship submits data to the Swedish National Single Window before and after arrival to Gothenburg and at the time of departure
9. The shipping company enters the container in the Swedish customs system by submitting the manifest
10. The shipping company declares community status of the goods in the port system in Gothenburg
11. The port terminal checks the documentation of community status of the goods
12. Transport from the port of discharge – The driver issues a note

Source: Danish Shipowners’ Association (2015)
A recent Oxford Economics study on the economic value of the EU shipping industry found that for every €1 million the European shipping industry contributes to GDP itself, it creates another €1.6 million elsewhere in the European economy.8 Short sea shipping has strong ripple effects in the maritime cluster and by extension in the continent’s wider economy. Short sea shipping is an important source of revenue for Europe. Part of the fleet is built and equipped in Europe, sustaining a much larger network of naval yards and SMEs. Last but not least, the cargo carried between EU ports plays a major role in the free movement of goods in the EU internal market.

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A sector reliant on skilled people

The short sea shipping sector employs well-trained, highly qualified people on their vessels and in company offices ashore. They rely on the support of excellent professionals in a wide variety of domains, such as customs experts, freight forwarders, agents, lawyers, engineers, etc. Given their local anchoring, short sea operators are often engaged in projects and initiatives to promote maritime careers among EU youngsters.

JR MasterClass (Netherlands)

JR Shipping offers youngsters a special seaworthy training programme to gain experience at sea during their studies. This JR MasterClass programme provides new, first- and second-year students with intensive, short-term work placements. Third- and fourth-year students have an opportunity to sail on longer voyages as ‘trainee crew members’. This programme is developed in close cooperation with two nautical institutions and completely attuned to “breed” professionals at sea.
Over the past decades short sea operators have been investing heavily in the greening of their fleets. Considerable resources and efforts are spent on innovative, green vessels and techniques.

1. On-shore power supply

Ferries often remain in a port for an average of six hours and during this time electricity is necessary to run on-board systems, such as heating and galley equipment. As a consequence, local residents have to put up with emissions and noise.

Stena Line invested in the infrastructure needed to power two vessels at the same time from the local grid while berthed in the port of Hoek van Holland. As the electricity grid is 50Hz and the on-board ship systems are mostly 60Hz, considerable additional investment was needed on the vessel and ashore. Using the system for a minimum of 80% of the port time reduces the NOx, SOx, PM (dust) and emissions by 80%.

2. LNG powered cargo vessel

The Dutch shipyard Ferus Smit delivered in 2015 to the SSS joint venture of Erik Thun A.B. and KG Jebsen Cement a dedicated 7,200 DWT cement carrier, the “Greenland”, powered by LNG. This is the first LNG powered short sea dry cargo vessel to date.

3. DFDS scrubber

DFDS is a pioneer in relation to scrubber technology. In 2009 an exhaust gas scrubber able to remove SO2 (Sulphur dioxide) was developed and installed as a retrofit onboard the vessel Ficaria Seaways. From 2009 to 2012 it had been in operation for 5630 hours. The obtained results showed that it was possible to reduce the SO2 level to under 19 ppm in the exhaust gas. This corresponds to below 0.1 % sulphur in the fuel. The use of scrubbers became more widespread thanks to the project on Ficaria Seaways.

4. Grimaldi Eurocargo

Livorno - Barcelona using road transport
- Distance 1050 km
- CO2 908 kg
- Trailers 1 unit
- CO2 emission per trailer 908 kg CO2

Livorno - Barcelona using Grimaldi SSS service
- Distance 391 km
- CO2 107.447 kg
- Trailers 250 unit
- CO2 emission per trailer 430 kg CO2

CO2 emission reduction Livorno - Barcelona -53%
5. Multimodal transport chains simulator

The Spanish Short Sea Promotion Centre has developed a multimodal transport simulator. The objective is to inform Spanish and European transport operators of alternative transport solutions using ro-ro maritime services in Spanish ports.

It provides a comparison of the key parameters of a road transport-only chain on the one hand and a multimodal chain (with a maritime leg) on the other hand. The tool is targeted at road transport companies and/or logistics operators, showing how, for most international voyages, the multimodal SSS chain is the more economic and sustainable option when compared to road haulage.
In response to the European Commission’s plan to review and possibly revise European shipping policy by 2017 ECSA presented in December 2015 sixteen policy proposals grouped in four thematic areas. These proposals aim to enhance the competitiveness of European shipping so that it can better support the needs of other industries. In the contribution ECSA also underlines some of the immediate obstacles to European growth that should be eliminated to help the shipping sector prepare for the future.

One of the priority areas identified is short sea shipping. With the proposals below, ECSA advocates the launch of a ‘Short Sea 2.0’ policy that will unleash the full potential of short sea shipping.

A ‘Short Sea 2.0’ policy to enable true Motorways of the Sea

1. Identify all barriers that prevent the establishment of true Motorways of the Sea

Short sea shipping should primarily be seen as part of the supply chain’s infrastructure, much in the same way as railroads or motorways. This is the true spirit of the EU’s Motorways of the Sea concept. To get short sea shipping to the next level, both a cross-sector approach and higher political attention are needed.

The European Transport Commissioner is invited to set up an intra-Commission ‘REFIT’-style task force solely dedicated to identifying and removing all barriers to short sea shipping in existing and upcoming legislation. This would also improve the understanding of short sea in EU policy-making.

The lack of a single market, cumbersome administrative procedures, market access restrictions for service providers in ports and other barriers not only make short sea shipping less competitive, but also less attractive than other transport modes. The European Commission should envisage an active campaign to inform shippers and road hauliers of the results achieved, promoting short sea shipping as a competitive and sustainable transport solution.

2. Complete the Single Market for shipping

The internal market is one of the most celebrated successes of the European Union. Its completion is a continuous exercise and a central element of the European growth agenda to address the current economic crisis. It is, however, clear that the single market remains incomplete and dysfunctional in some sectors. This is especially true for shipping.

Although it was listed as one of the key priorities under the Single Market Act II, short sea shipping remains disadvantaged compared to other transport modes. In many cases, goods transported by short sea shipping between two EU seaports lose community status as soon as they leave port. This entails a heavy administrative burden, involving several authorities and intermediate parties. Procedures and requirements are not only complex but also repetitive, resulting in productivity losses and unnecessary workload and stress for ship crews.

The real-time tracking of the movement of every merchant ship via the Automatic Identification System (AIS) enables customs authorities and other officials to establish that a ship has arrived directly from another Member State, with exactly the same certainty as when they watch a truck or a train roll across an internal EU border. Goods carried on such ships could therefore be treated in the same way as those carried on land, and deemed to be Union goods unless identified otherwise. Short sea shipping has the full ability to be ‘just like trucks’, which should become its main selling point. Many administrative formalities related to the arrival of the ship are outdated, unnecessary and repetitive. This applies both to cargo and crew-related documentation. They should be streamlined and rationalised to alleviate the administrative burden. Attention should also be given to better coordination of inspections on board.

For those formalities that pass the relevance test and are retained, a genuine European single window should be provided, based on the ‘reporting once’ principle and the use of a harmonised electronic cargo manifest.
The planned revision of the Reporting Formalities’ Directive should rigorously go through the above steps and avoid being reduced to a mere upgrading of national single windows. Taken together, these measures will eliminate all discriminatory procedures and at long last complete the Single Market for shipping.

3 Simplify procedures for regular short sea services with third countries
The current legal definition of short sea shipping also involves maritime services with some third countries, which can bring synergies with pure intra-EU services. Whilst the main priority should be the completion of the single market for intra-EU services, there is also considerable scope to simplify and rationalise administrative procedures for short sea services that also call at non-EU ports.

There is immediate prospect to extend the simplifications for intra-EU services to regular shipping services to members of the Common Transit Convention, which include Norway, Iceland and Turkey.

4 Ensure market access to port services and guarantee free movement of goods
EU shipping policy has so far not delivered on its promise to open market access to port services. This is particularly important for short sea shipping operators, who make frequent port calls and for whom financial and time losses add disproportionately to the total costs of transportation. The ongoing legislative process on the latest port regulation proposal will not deliver the expected results as significant services are excluded, leaving only a limited number of services that have relatively much lower impact on port call costs. Alternative solutions must therefore be found, through individual case decisions and a more structured approach in the context of the Trans-European Transport Networks (TEN-T), as already envisaged in the European Commission’s 2013 ports policy communication.

The Commission should in particular set up a common framework for Pilotage Exemption Certificates (PECs), allowing access to PECs in all EU ports, while taking into account local conditions and preserving present safety levels. Although such a framework would benefit shipping in general, it would especially be relevant for short sea services. For these services, pilotage fees often represent a large cost compared to the daily freight rate of the vessel. For regular short sea services, having a PEC system is even more obvious, as these services are currently often obliged to pay for pilotage services that they do not need, given the high number of calls made at the same ports.

Shipping companies are absolutely dependent on ports being open and operational in order to run their own services. Member States have a duty to keep their ports open to all traffic that wishes to use them. It is imperative that shipping services are afforded the same degree of protection against acts of sabotage and wilful obstruction as competing services in other modes. The blockade of the port of Calais last summer illustrates that this is not always given.

Notwithstanding the fact that the maintenance of public order is a matter for Member States, the EU needs to act to protect short sea shipping and its customers through an effective implementation of the Regulation on the functioning of the internal market in relation to the free movement of goods.

5 Devise competition-neutral ways to financially stimulate short sea shipping
With the end of the Marco Polo programme, funding for short sea shipping is no longer set aside for the financing of specific new shipping routes. European shipowners support an alternative approach whereby funding focuses on infrastructure both ashore and on vessels, including qualified environmental upgrading and retrofitting, subject to agreed conditions and predefined criteria.

The development of innovative financing tools in the context of the European Sustainable Shipping Forum (ESSF) will enable easier access to grants and loans from financial institutions for environmental investments. The European Investment Bank (EIB) and the European Commission are elaborating a risk sharing instrument to re-attract commercial lenders to this market. The design of such a dedicated innovative financial instrument for the shipping sector is currently subject to pilot cases in some EU Member States with the final goal of establishing a scheme that can be deployed at European level.

Awaiting the completion of the internal market for shipping and taking into account the decline of the short sea market share, the European Commission should also assess the possibility of a European-wide initiative to provide financial incentives for the demand side of short sea shipping. It can draw from the experience of the Italian Ecobonus scheme as well as ongoing projects under the Connecting Europe Facility (CEF), taking into account that incentives should not only benefit liner services, but also vessels operating on the spot market.
The European Community Shipowners’ Associations (ECSA), founded in 1965, is the trade association representing the national shipowners’ associations of the EU and Norway with close to 99% of the EEA fleet or about 40% of the world fleet by gross tonnage.

Our aim is to promote the interests of European shipping so that the industry can best serve European and international trade and commerce in a competitive free enterprise environment to the benefit of shippers and consumers and help formulate EU policy on critical maritime transport-related issues.

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